

REMARKS

Claims 30-49 have been rewritten as claims 50-70 to address the indefiniteness rejection and to recite the elected invention.

It is respectfully submitted that the present amendment presents no new issues or new matter and places this case in condition for allowance. Reconsideration of the application in view of the above amendments and the following remarks is requested.

I. The Rejection of Claims 30-34 under the Doctrine of Obviousness-Type Double Patenting

Claims 30-34 are rejected under the doctrine of obviousness-type double patenting as being unpatentable over claims 14-30 of U.S. Patent No. 6,762,040.

Claims 30-34 have been canceled without prejudice or disclaimer. Therefore, this rejection is rendered moot.

II. The Rejection of Claims 30-34 and 37-39 under 35 U.S.C. 112

Claims 30-34 and 37-39 are rejected under 35 U.S.C. 112 as being indefinite. Specifically, the Office provided two grounds for the rejection.

First, the Office objected to the term "substantially" as being vague and indefinite. This ground for the rejection is respectfully traversed.

The specification includes working examples in which the promoter operatively linked to the conditionally essential gene has a lower activity than the endogenous promoter. Applicants submit that based on Applicants' specification, the term "substantially" would be clear to persons of ordinary skill in the art.

Second, the Office alleges that it is unclear in claim 30 if the amplification unit is integrated into the genome or is an autonomously replicating unit.

Claim 30 has been written as claim 59 to address this rejection. Specifically, new claim 59 recites that the amplification unit is integrated into the genome, as suggested by the Examiner.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 112. Applicants respectfully request reconsideration and withdrawal of the rejection.

III. The Rejection of Claim 39 under 35 U.S.C. 112

Claim 39 is rejected under 35 U.S.C. 112 as failing to comply with the written description requirement. This rejection is respectfully traversed.

As set forth in Federal Circuit decisions, a specification complies with the written description requirement if it provides "a precise definition, such as by structure, formula, chemical name, or physical properties of the claimed subject matter sufficient to distinguish it from other materials." See, e.g., *University of California v. Eli Lilly and Co.*, 43 U.S.P.Q.2d 1398, 1404 (Fed. Cir. 1997); *Enzo Biochem v. Gen-Probe Inc.*, 63 U.S.P.Q.2d 1609, 1613 (Fed. Cir. 2002).

The claimed invention is directed to bacterial host cells comprising at least two copies of an amplification unit in its genome, the amplification unit comprising at least one copy of a gene of interest and an expressible conditionally essential gene, wherein the conditionally essential gene is either promoterless or transcribed from a heterologous promoter having an activity lower than the endogenous promoter of the conditionally essential gene, wherein the conditionally essential gene is at least 75% identical to the *lysA* sequence of *Bacillus licheniformis* shown in SEQ ID NO: 48 of WO 02/00907 A1, the *leuB* sequence of *Bacillus licheniformis*, the *metC* sequence of *Bacillus licheniformis* shown in SEQ ID NO: 42 of WO 02/00907 A1, or the *metE* sequence of *Bacillus subtilis* shown in positions 997 to 2199 of SEQ ID NO: 16.

The specification fully describes the conditionally essential genes of the present invention. Based on Applicants' disclosure, the skilled artisan would be led to make other conditionally essential genes having at least 75% identity to the *lysA* sequence of *Bacillus licheniformis* shown in SEQ ID NO: 48 of WO 02/00907 A1, the *leuB* sequence of *Bacillus licheniformis*, the *metC* sequence of *Bacillus licheniformis* shown in SEQ ID NO: 42 of WO 02/00907 A1, or the *metE* sequence of *Bacillus subtilis* shown in positions 997 to 2199 of SEQ ID NO: 16. Applicants therefore submit that the specification demonstrates that Applicants had possession of the claimed invention at the time the application was filed.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 112. Applicants respectfully request reconsideration and withdrawal of the rejection.

IV. The Rejection of Claims 30-32, 34 and 37 under 35 U.S.C. 102

Claims 30-32, 34 and 37 are rejected under 35 U.S.C. 102(b) as being anticipated by Glenting et al. (*Applied and Environmental Microbiology*, 68(10): 5051-5056 (2002)). This rejection is respectfully traversed.

Glenting et al. disclose a nonantibiotic host-plasmid selection system based on complementation of a threonine-auxotrophic strain using the *hom-thrB* operon for the production of heterologous proteins in *Lactococcus lactis*.

However, Glenting et al. do not disclose that the conditionally essential gene is either promoterless or transcribed from a heterologous promoter having an activity lower than the endogenous promoter of the conditionally essential gene, as claimed herein.

Moreover, Glenting et al. do not disclose that an amplification unit is integrated in the genome of the bacterial host cell.

For the foregoing reasons, Applicants submit that the claims overcome this rejection under 35 U.S.C. 102. Applicants respectfully request reconsideration and withdrawal of the rejection.

V. The Rejection of Claims 30-34 under 35 U.S.C. 103

Claims 30-34 are rejected under 35 U.S.C. 102(e) as being anticipated by Rasmussen (U.S. Patent No. 6,762,040).

Claims 30-34 have been canceled without prejudice or disclaimer. Therefore, this rejection is rendered moot.

VI. Conclusion

In view of the above, it is respectfully submitted that all claims are in condition for allowance. Early action to that end is respectfully requested. The Examiner is hereby invited to contact the undersigned by telephone if there are any questions concerning this amendment or application.

Respectfully submitted,

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